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ON OBSTRUCTED LABOR FROM SHORT OR COILED FUNIS, AND ITS TREATMENT BY CHANGE OF POSITION FROM RECUMBENCY TO SITTING.

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FIVE years ago I published a short paper (*American Journal of Obstetrics*, April, 1881) on the "*Antenatal Diagnosis and Treatment of Short or Coiled Funis*," in which I endeavored to call attention, not so much to the *mortality* resulting from this complication as to its influence in *prolonging labor*, and thus adding some hours of agony to the parturient woman's sufferings, and which it is our bounden duty to abridge as far as we safely can.

Attention was also called to a symptom—not elsewhere mentioned—which I had observed in these cases, and which then led me to suggest the method of treatment that I now desire to commend to your consideration. The symptom referred to was: *a persistent desire on the part of the patient to assume a sitting posture*, the desire of course being unaccompanied with any wish to evacuate the bladder or bowels. The question then presented itself as to whether labor might be safely expedited by *permitting the female to assume a sitting posture*, or a kneeling or squatting one.

It must certainly be admitted, however, that the desire to sit is either not felt, or at least not expressed, in all of these cases, though in some it is very persistent. Probably some women, having already learned from the physician or the midwife, that they must keep lying down after the rupture

of the waters, fail to express their desires, being content to remain obedient to the direction of their attendants. In others, the natural feelings of the woman are modified by anæsthesia; while again others become too weak from fatigue, during a long labor, to undertake any movement whatever. In the five cases of dystocia from coiled cord published by Dr. George W. Rachel of New York (*American Journal of Obstetrics*, September, 1884, pp. 918–930), there was (as he subsequently informed me by letter) no desire to sit up—at least none was expressed. He adds, however, that in three of the cases chloroform was administered.

At my request, my friend Dr. W. H. Taylor, of this city (Washington, D. C.), reports the following case:

Mrs. K. B., age thirty years, white, multipara.—Taken with labor pains 12 o'clock M., November 26, 1882. Head presentation; left occipito-anterior position. At 7 P. M. pains strong and regular. 11.40 P. M., head well down in pelvis; ruptured membranes; contractions strong and continuous. Head coming down and beginning to distend perineum, and then making a stop. At this point the patient asked to sit up. I objected, when she suddenly made an effort to get up, throwing herself almost out of bed and grabbing hold of me (Dr. Taylor), rested her head on my shoulder, thus bringing her body at right angles with her lower limbs, and in this position the child was born in a *few seconds*. The cord was the shortest I ever saw, and when cut, its placental portion retracted until only about an inch protruded from the vulva. The placenta was detached, and about half in the vagina; it was removed almost immediately, the uterus being well contracted. This is the fourth time I have attended this lady, and I was surprised at her asking to sit up, as she has always been so quiet in her former confinements, and was so on this occasion until the child's head came down upon the perineum, when she *would* and *did* sit up, and, in a measure, sat upon me, much to my disgust.

In a subsequent note, dated October, 1884, Dr. Taylor writes that he delivered this woman of her fifth child; but

in this, as in her first three labors, there was no desire to sit up, and no shortness or coiling of the cord. I may next record the following case:

Mrs. K., in labor, at full term, second child, December 19, 1884. With her first labor she had albuminuria and uremic convulsions, two years ago, but there is no albumen in the urine now, and no edema. General health good; aged twenty-eight. Feeble pains began at midnight, December 18th, and continued until the time of my first visit, 3 P. M., December 19th. She is walking about her room. Pains occur every fifteen minutes. Os uteri soft and dilatable, about as large as a silver half-dollar. Head presenting left occipito-anterior position, membranes intact. Left her to return at 6 P. M. By advice of the nurse she had just gone to bed. Os uteri as large as a silver dollar; pains strong, frequent, with the usual bearing-down efforts.

At 7 P. M. the head almost through os uteri. Ruptured membranes with the finger. Small discharge of liquor amnii, owing to the head plugging the os uteri. Pains still increasing, and I promised a speedy delivery. The woman now begins to place her hand high up on the left side of the uterus and complain of pain and soreness, which she insists is different from ordinary labor pain.

At 8 P. M. the head passed the os uteri, and soon reached the perineum and vulva. But now, much to the disappointment of us all, the pains no longer increase in strength; they get shorter and less frequent, yet when they do come she holds her breath, grunts deeply, and strains until blue in the face, so that I was led to examine repeatedly, thinking surely the head must be escaping from the vulva. On the contrary there is absolutely no progress, and so it went on from 8 till nearly 10. I felt sure the child would have been born an hour ago. There is no apparent obstruction. The head is quite movable, plenty of room all round it. The pains, when they do come, are strong; but the head gets not a whit nearer the vulva. It comes down far enough to separate the labia half an inch, but between the pains springs back to where it was before. I asked the woman if she had any desire to sit up. She answered, peevishly, "I can't—I can't *move*, it hurts me so."

Suspecting a coiled cord, I tried to reach it with the finger, but could not do so. As her pulse retained its strength, with no abnormal frequency or other sign of exhaustion, I desisted from using forceps, but determined to try the expedient of placing the woman in a sitting posture, but without appearing to do so. Propping up her head and shoulders with several pillows, the nurse was told to pull the patient's left arm during the next pain, while I took her right hand in my left for the same purpose, so that we might pull her up into a nearly sitting posture when the pain came on—my right hand being free to watch the head and perineum. The pain came; we raised the patient, who immediately exclaimed: "Oh! I feel the head coming out," but it had not done so. It had, however, progressed so far as to separate the labia from half an inch to two inches, and with one more moderate pain in this new position the head was delivered, the soft and ample perineum affording no obstacle whatever. There was one coil of cord round the neck, but it was too short and tight to admit of drawing down a loop big enough to pass over the head, and while trying to do so another pain expelled the body. The child stiffened its limbs convulsively, as I have seen before in coiled cord cases, but it soon breathed and cried lustily. A large globular mass of the fetal surface of the placenta projected into the vagina, whence it was easily removed, with a moderate gush of blood, but not more than ordinarily occurs in normal labors. The woman had one of the most violent *post-partum* chills I ever witnessed, but she and her child both did well.

In commenting on this case I have only to ask: How long this woman's agonies would have been protracted had a sitting posture not relieved her by immediate delivery? Furthermore, since a change of position relieved her shortly after 10 P. M., would it not have done the same at 8 P. M., when the progress of the head was first arrested, and thus have spared the patient two hours of intense suffering?

I have a brief and incomplete record of another case, Mrs. C., occurring in the practice of Dr. W. W. Johnston, in which Dr. Joseph Taber Johnson and myself were in consultation:

The head was down through the os uteri, but not touching the perineum. The woman was extremely exhausted, with a feeble and frequent pulse; she was only supported by milk and whisky. There had been no progress for some hours, and the pains had become weak and infrequent. She repeatedly asked to be allowed to sit up, but was, we *all* (I must confess) thought, too feeble to do so. Forceps were applied, and after repeated and violent efforts failed to deliver; but a recently dead child was finally delivered by craniotomy, with the cord coiled once round its neck and once round its body. The woman recovered after a long puerperal illness.

I can not help thinking this infant might *probably* have been born hours before, and alive, if the woman had been permitted to assume, as she wished, a sitting posture.

These three cases present, I think, typical illustrations that are by no means of infrequent occurrence in practice. In one the woman wanted to sit up, and was prohibited from doing so; yet, in spite of the physician's prohibition, she did sit up and was at once delivered. In the second case there was no expressed wish to sit, but on raising the woman without her consent the child was immediately born. In the third case the desire to sit was prohibited, the prohibition obeyed, and the woman drifted into tedious labor, with forcible forceps delivery, a dead infant, and serious puerperal illness afterward.

This third class of cases, with our present prevalent methods of practice, is perhaps of most frequent occurrence. Who of us can not recall cases in which we have been requested to apply forceps in difficult labor, and in which, when the child was born, an unsuspected coiled cord was found to be present? And who shall say, with our present and more recent knowledge of the subject, that the coiled cord did not constitute a very material factor in the dystocia?

I will not weary the Fellows of this Society by reviewing the more recent literature of this matter, with which every one present is doubtless familiar. I must not fail, however, to record my regret that so little attention has been given to

coiled funis as a cause of obstructed labor in some of our recent text-books—notably, the works of Leishmann, Playfair, and Barnes.

Following the publication of my own paper in April, 1881, there soon appeared (whether it were a *post hoc* or a *propter hoc* matters little) the elaborate essay of Dr. J. Matthews Duncan, read before the Obstetrical Society of London, November 2, 1881 (see *Obstetrical Transactions*, vol. xxiii, 1881, p. 243, etc.), in which the subject was again considered, and with the scientific acumen so characteristic of Dr. Duncan's writings. In the subsequent discussion, participated in by Drs. J. Braxton Hicks, Barnes, Edis, Brunton, Robertson, and several others, no reference was made to change of posture from lying to sitting as a remedial measure. I am glad the subject has been called anew to the attention of the profession. I am convinced it is one deserving more serious consideration than it has hitherto received. With the various results of short funis, viz., rupture of the cord, inversion of the womb, premature separation of the placenta, etc., we are all familiar; but I do not think any of us completely understand or duly appreciate the amount of additional force sometimes required to deliver by forceps in these cases. The strongest cord will bear a resistance of 15 pounds before rupture, the average cord 8¼ pounds (Duncan); but instead of our traction force being expended *solely* upon the cord, some of it (we know not how much) is or may be spent in stretching the placenta, or partially separating it from the womb; or in indenting the uterus at the placental site; or in pulling the whole uterus lower down into the pelvis; or in compressing the soft parts of the fetus round which the cord is coiled. If now we add the unknown sums of these resistances together, and combine with them the ordinary resistance of the passenger and passage in a normal labor, I think some of our forceps deliveries in coiled funis will require a degree of traction force infinitely more to be dreaded than changing the position of the woman into a sitting or kneeling one for a few minutes. It may also be

added that in some of these cases the womb itself ceases to perform its contractions properly, hence this lost uterine force must also be supplanted by traction. In the case recently reported by Dr. Dyrenfurth (*Centralb. f. Gyn.*, December 19, 1885), quoted in the *American Journal of the Medical Sciences*, April, 1886, p. 666, where the cord was only 1·4 inches long, and in which, after a labor of five days, the child was found to be dead, and with a slight degree of hydrocephalus after the cranial bones had been removed, "even then the head refused to descend, owing to the shoulders remaining above the brim," but "vigorous efforts finally succeeded in dragging the shoulders through the pelvis"—a success, be it noted, that was also attended with rupture of the cord and partial inversion of the uterus. No mention is made of pelvic deformity; *per contra*, the patient had previously had four normal confinements, and Dr. Dyrenfurth himself asserts that the short cord necessitated the *forcible* dragging down of the shoulders.

In place of this forcible delivery I commend a sitting posture, which, I presume, forces the whole womb and its contents down deeper into the pelvis; affords the woman a more powerful control over the abdominal muscles; and enables the womb to resume its normal contractions.

If there are any dangers from a sitting posture at the stage of labor indicated (other than imaginary ones), I should be glad to know what they are, how frequently they occur, and who has seen them demonstrated? To those who may not believe that the change of posture will effect delivery as stated, I have only to say, try it.